WINBEST®
by BARSKA®

Master Edition Metal Detector

Three-Tone Audio Discrimination
Distinctive tones for different types of metals

Analog Meter
Shows the probable type of metal being detected

Auto Tune
Tune your detector quickly for accuracy

Arm Support
Operate your detector comfortably

Adjustable Stem
Adjust the detector's length for comfortable use

Waterproof Search Coil
Lets you use the detector to search under water. Note: The search coil is waterproof, but the detector's control housing is not waterproof

Headphone Jack
Lets you connect headphones (not supplied) to the detector

Low Battery Indicator
Lets you know when it is time to replace the batteries

Operates on two 9V alkaline batteries (not supplied)

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❒ *Features*

With your metal detctor, you can hunt for coins, relics, jewelry, gold, and silver just about anywhere. The Metal Detector is versatile and easy to use. Its features include:

Three-Tone Audio Discrimination — sounds distinctive tones for different types of metals, to make target identification easier.

Analog Meter— shows the probable type of metal being detected.

Auto Tune — lets you tune your detector quickly for accuracy.

Arm Support — lets you carry and operate your detector comfortably.

Waterproof Search Coil — lets you use the detector to search under water. (The search coil is waterproof, but the detector's control housing is not waterproof.)

Adjustable Stem — lets you adjust the detector's length for comfortable use.

Headphone Jack — lets you connect headphones (not supplied) to the detector.

Low Battery Indicator — lets you know when it is time to replace the batteries.

TREASURE HUNTER'S CODE OF ETHICS

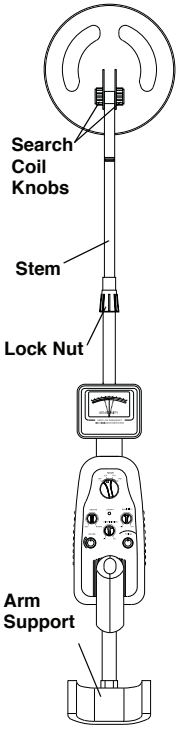
All treasure hunters might be judged by the example you set. Here are a few basic rules you should follow while using your detector.

- Always get permission before searching any site.
- Respect the rights and property of others.
- Observe all national, state, and local laws while treasure hunting.
- Never destroy historical or archaeological treasures. If you are not sure about an object you have found, contact a museum or historical society in your area.
- Leave the land and vegetation as it was. Fill in any holes you may dig.
- Use your detector only in safe areas.
- Dispose of any junk you find, only in approved areas. Do not leave it for the next treasure hunter to find.

❒ Preparation

ASSEMBLING THE DETECTOR

Assembling your detector is easy and requires no special tools. Just follow these steps.



1. Turn the stem's lock nut clockwise until it loosens.

2. Lengthen or shorten the stem so when you stand upright with the detector in your hand, the search coil is level with and about 1/2 to 2 inches above the ground with your arm relaxed at your side.

3. Turn the stem's lock nut counter-clockwise to lock it in place.

4. Unscrew the knobs on the search coil and remove the knobs and connector. Insert the stem and align the holes on the search coil bracket and the stem. Push the connector through the holes, then replace and tighten the knobs.

5. Wind the search coil cable around the stem. Leave enough slack in the cable to let you adjust the search coil when you are hunting on uneven ground.

6. Insert the search coil's plug into the search coil jack on the detector's control housing so the pins on the plug are aligned with the holes in the jack.

   Cautions:

   - The search coil's plug fits into the connector only one way. Do not force the plug or you could damage it.

   - To disconnect the search coil's cable from the detector, grasp the plug and pull it out of the connector. Never pull on the cable.

7. Loosen the knob at the search coil's end, then adjust the search coil to the desired angle. (The search coil should be parallel with the ground.) Tighten the knob just enough to keep the search coil from rotating or wobbling.

   Caution: Do not overtighten the search coil or use tools such as pliers to tighten it.

8. Loosen the knob at the base of the handle, insert the arm support, and tightenthe knob.

INSTALLING BATTERIES

Your detector requires two 9V alkaline batteries (not supplied) for power.

Cautions:

- Use only new batteries of the required size and recommended type.

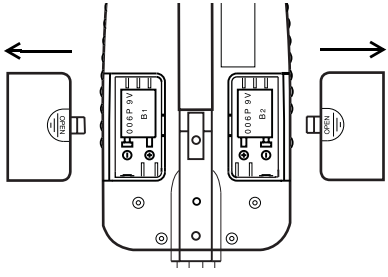
- Do not mix old and new batteries, different types of batteries (standard, alkaline, or rechargeable), or rechargeable batteries of different capacities.

1. If the detector is on, turn **MODE** to **OFF**.

   Note: When you turn the mode switch to **OFF**, the LOW BATT indicator flashes once.

2. Press the right battery compartment cover's tab and slide the cover off in the direction of the arrow.

3. Place a 9-volt battery into the battery compartment on top of the ribbon, matching the polarity symbols (+ and –) marked inside.



4. Replace the right battery compartment cover.

5. Press the left battery compartment cover's tab and slide the cover off in the direction of the arrow.

6. Place a 9-volt battery into the battery compartment on top of the ribbon, matching the polarity symbols (+ and –) marked inside.

7. Replace the left battery compartment cover.

Warning: Dispose of old batteries promptly and properly. Do not burn or bury them.

Caution: If you do not plan to use the detector for a week or more, remove the batteries. Batteries can leak chemicals that can destroy electronic parts.

Notes:

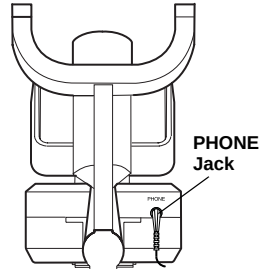
- For better life, exchange the two batteries periodically.
- You can extend battery life by using headphones, which require less power than the built-in speaker. See "Using Headphones."

If the LOW BATT indicator lights during normal use or the detector does not function properly, replace the batteries. If it still does not function properly, you might need to reset the detector.

USING HEADPHONES

You can connect a pair of stereo headphones (not supplied) to the detector so you can listen to it privately. Using headphones also saves battery power and makes it easier to identify subtle changes in the sounds you hear, for better detection results. Your local RadioShack store has a wide selection of headphones.

To connect headphones to the detector, insert the headphones' $^{1}/_{8}$-inch plug into the **PHONE** jack on the side of the control housing.



The detector's internal speaker disconnects when you connect headphones.

Listening Safely

To protect your hearing, follow these guidelines when you use headphones.

- Set the volume to the lowest setting before you begin listening. After you begin listening, adjust the volume to a comfortable level.

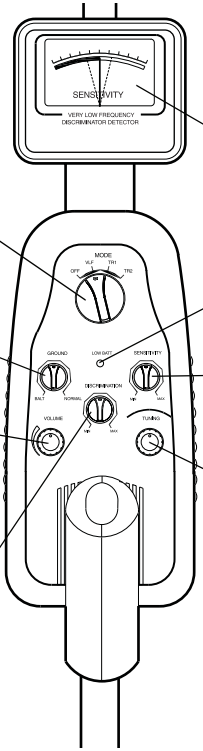
- Do not listen at extremely high volume levels. Extended high-volume listening can lead to permanent hearing loss.
- Once you set the volume, do not increase it. Over time, your ears adapt to the volume level, so a volume level that does not cause discomfort might still damage your hearing.

Traffic Safety

Do not wear headphones while operating a motor vehicle or riding a bicycle. This can create a traffic hazard and could be illegal in some areas.

Even though some headphones let you hear some outside sounds when listening at normal volume levels, they still can present a traffic hazard.

❒ *A Quick Look at Your Metal Detector*



MODE — lets you select from OFF, VLF, TR1, TR2. (See "Turning On the Detector" on Page 7.)

GROUND — compensates for false signals from mineralized soil. (See "Adjusting Ground" on Page 9.)

VOLUME — lets you adjust the volume of alert tones.

DISCRIMINATION — lets you adjust the metal detector's ability to distinguish between different types of metal. (See "Adjusting Discrimination" on Page 9.)

Analog Meter

LOW BATT Indicator

SENSITIVITY — lets you adjust the detection depth. (See "Adjusting Sensitivity" on Page 9.)

TUNING — adjusts the balance between the receiver and transmitter. (See "Tuning the Detector" on Page 7.)

❒ Operation

Your metal detector distinguishes between ferrous and non-ferrous metals. Ferrous metals contain iron, while non-ferrous metals such as gold, silver, copper, platinum, aluminum, lead, and zinc do not.

When the detector senses a metallic object, the meter reading changes and the detector sounds one of three tones. The tone depends on what metal is detected. The higher the tone's pitch, the stronger the detection.

PREPARING THE DETECTOR

Turning On the Detector

Hold the detector in a comfortable position, then rotate **MODE** to the desired position.

VLF (Very Low Frequency) — to adjust **TUNE** and **GROUND**. (See "Adjusting Ground" on Page 9 and "Tuning the Detector" below.)

TR1 (Transmit 1) — to detect extreme differences in metals, such as iron and gold. The difference between iron and gold shows on the meter (iron in the ferrous section, gold in the non-ferrous section).

TR2 (Transmit 2) — to detect finer distinctions between metals, such as aluminum and gold (see "Adjusting Discrimination" on Page 9).

Tuning the Detector

TUNE fine-tunes the balance between the detector's receiver and transmitter circuitry to provide consistent pointer and tone indications. Follow these steps to set **TUNE**.

1. Rotate **VOLUME** to the 10 o'clock position.
2. Set **MODE** to **VLF**.
3. Set **GROUND**, **DISCRIMINATION**, and **SENSITIVITY** to mid-range.
4. Hold the search coil at least 1 foot away from the ground and any metal object, hold down the red button on the handle and slowly rotate **TUNE** until the analog meter pointer resets at or near 0.

As you search, you can fine-tune the detector using the other controls (see "Fine-Tuning the Detector" on Page 9).

Note: Press the red button on the handle at any time during operation to automatically return the pointer to the center of the analog meter.

TESTING AND USING THE DETECTOR

To learn how the detector reacts to different metals, you should test it before you use it the first time. You can test the detector indoors or outdoors.

Indoor Testing

1. Remove any watches, rings, or other metal jewelry you are wearing, then place the detector on a wooden or plastic table.
2. Adjust the search coil's angle so the flat part faces the ceiling.

   Note: Never test the detector on a floor inside a building. Most buildings have metal of some kind in the floor, which might interfere with the objects you are testing or mask the signal completely.
3. Set **MODE** to **TR1**.
4. Move a sample of the material you want the detector to find (such as a gold ring

or a coin) about 2 inches above the search coil.

Notes:

- The search coil will not detect without motion. You must move the object since you are not sweeping with the detector at this time.
- If you are using a coin, the detector detects it more easily if you hold it so a flat side (not the edge) is parallel with the flat side of the search coil.

If the detector detects the material, the pointer moves to **FERROUS** or **NON-FERROUS** while the detector determines the type of metal it is detecting. If it detects non-ferrous metal, it also sounds a tone.

If the detector does not detect the material, check the LOW BATT indicator and verify that the search coil is properly connected. Also, you might need to fine-tune the detector See “Fine-Tuning the Detector” on Page 9

Outdoor Testing and Use

1. Find an area on the ground outside where there is no metal.
2. Place a sample of material you want the detector to find (such as a gold ring or a coin) on the ground. (If you are using valuable metal such as gold to test the detector, mark the area where you place the item, to help you find it later. Do not place it in tall grass or weeds.)
3. Set **MODE** to **TR1**.
4. While holding the search coil level about 1–2 inches above the ground, slowly move the search coil over the area where you placed the sample, sweeping the search coil in a side-to-side motion.

Search Coil Sweeping Hints:

- Never sweep the search coil as if it were a pendulum. Raising the search coil while sweeping or at the end of a sweep causes false readings.
- Sweep slowly; hurrying makes you miss targets.

If the detector detects the item, it sounds a tone and the pointer moves to the type of metal it found. When you detect metal, switch **MODE TR1** to **TR2** to determine the quality of the metal.

If the detector does not detect the material, make sure you are moving the search coil correctly.

Notes:

- The detector responds with a strong signal when it detects most valuable metal objects. If a signal does not repeat after you sweep the search coil over the target a few times, the target is probably junk metal.
- False signals can be caused by areas containing large amounts of trash, electrical interference, or large irregular pieces of junk metal. False signals are usually broken or non-repeatable.

5. Try finding other metal in the area. When you find a metal item, wait a few seconds after the tone stops before continuing to allow the detector time to reset (or, press the red button on the handle to return the pointer to the center of the analog meter).

FINE-TUNING THE DETECTOR

After you become familiar with how your detector works, you can fine-tune it to make it less sensitive to interference and more selective in what it finds.

Adjusting Sensitivity

To adjust the search coil's ability to detect objects at different depths in the soil, rotate **SENSITIVITY** between **MIN** and **MAX**. For maximum detection depth, leave **SENSITIVITY** set as high as possible. If the detector makes a "chattering" noise, decrease **SENSITIVITY** until the chatter stops.

Adjusting Ground

Setting **GROUND** takes a little time, but is critical for accurate operation. **GROUND** tunes out false signals from mineralized soil. Follow these steps to set **GROUND**.

1. Set **MODE** to **VLF** and lower the search coil to $^1/_2$ to 2 inches above the ground.

2. If the pointer swings to the right (Non-ferrous), turn **GROUND** to **NORMAL**. If the pointer swings to left (Ferrous), turn **GROUND** to **BASALT**.

3. Raise the search coil about 1 foot from the ground and press the red button on the handle. The pointer returns to the center.

4. Repeat Steps 1–3 until the pointer stays close to the center each time you lower the search coil to the ground.

After you set **GROUND**, the detector is set for the soil type at that particular site. Do not reset it until you use the detector at a different site.

Adjusting Discrimination

Discrimination is the detector's ability to differentiate between types of metal. The detector's **DISCRIMINATION** setting determines whether the detector will distinguish between different types of ferrous and non-ferrous metals.

If **MODE** is set to **TR2**, start with **DISCRIMINATION** set to mid-range. While you use the detector, adjust **DISCRIMINATION** to the best position. As you set **DISCRIMINATION** higher, the detector becomes more sensitive to the differences between large aluminum and gold pieces, for example, but some small valuable pieces, such as coins and small rings, might be overlooked.

As you set **DISCRIMINATION** to higher levels, the detector first does not detect small pieces of silver paper, then thick foil, and finally metal objects like pull tabs from aluminum cans.

Note: Each time you use the detector in a different area, you must readjust **DISCRIMINATION**. Each search location presents new challenges.

FALSE SIGNALS

Because your detector is extremely sensitive, trash-induced signals and other sources of interference might cause signals that seem confusing. The key to handling these types of signals is to dig for only those targets that emit a strong, repeatable signal. As you sweep the search coil back and forth over the ground, learn to recognize the difference between signals that occur at random and signals are stable and repeatable.

To reduce false signals when searching areas containing large amounts of trash, scan only a small area at a time using slow, short overlapping sweeps.

DETECTION HINTS

No detector is 100 percent accurate. Various conditions influence metal detection. The detector's reaction depends on a number of factors:

- the angle at which the object rests in the ground
- the depth of the object
- the amount of iron in the object
- the size of the object

PINPOINTING A TARGET

Accurately pinpointing a target makes digging it up easier. This takes practice, and we suggest you practice finding and digging up small metal objects on your own property before you search other locations.

Sometimes, targets are difficult to accurately locate due to the sweep direction. Try changing your sweep direction to pinpoint a target.

1. When the detector locates a buried target, continue sweeping the search coil over the target, in a narrowing side-to-side motion.
2. Make a visual note of the exact spot on the ground where the detector beeps.
3. Stop the search coil directly over this spot on the ground. Then move the search coil straight away from you and straight back toward you a couple of times.
4. Make a visual note of the exact spot on the ground where the detector beeps.
5. Repeat Steps 1–3 at a right angle to the original searchline, making an "X" pattern. The target will be directly below the "X" at the point of the loudest response.

Notes:

- If trash in an area is so heavy that you get false signals, slow your sweep speed and use shorter sweeps.
- Recently buried coins might not respond the same as coins buried for a long period of time because of oxidation.
- Some nails, nuts, bolts, and other iron objects (such as old bottle caps) oxidize and create a "halo" effect. A halo effect is caused by a mixture of natural elements in the ground and the oxidation created by different metals. Because of the metal mixtures, target signals might not be in a "fixed" position. This effect makes these objects very hard to detect accurately. (See "Fine-Tuning the Detector" on Page 9.)

❒ Troubleshooting

If your detector is not working as it should, follow these suggestions to see if you can eliminate the problem.

Problem	Suggestion
The detector displays or sounds false signals.	The sensitivity might be set too high. Adjust **SENSITIVITY**.
	You might be sweeping the detector's search coil too fast or at the wrong angle. Sweep the search coil more slowly and hold the detector correctly. See "Testing and Using the Detector" on Page 7 and "Pinpointing a Target" on Page 10.
	The detector might sound a false signal if it detects heavily oxidized metals. Try pinpointing the target from several different angles (see "Pinpointing a Target" on Page 10). If the detector does not display and sound the same signal each time, the target is probably heavily oxidized metal.
The display does not show the correct metal type when the detector finds a target. Or, the detector sounds more than one type of tone when it finds a target.	There might be more than one target in the area you are searching.
	The target might be a type of metal that the detector does not recognize.
	If the target is heavily oxidized, the detector might not display the correct metal type. This is not a malfunction.
	The sensitivity might be set too high. Adjust **SENSITIVITY**.

❒ Care

Keep the metal detector dry; if it gets wet, wipe it dry immediately. Use and store the metal detector only in normal temperature environments. Handle the metal detector carefully; do not drop it. Keep the metal detector away from dust and dirt, and wipe it with a damp cloth occasionally to keep it looking new.

Modifying or tampering with the metal detector's internal components can cause a malfunction and might invalidate its warranty.

The search coil supplied with the detector is waterproof and can be submerged in either fresh or salt water. However, do not let water enter the detector's control housing. After using the search coil in salt water, rinse it with fresh water to prevent corrosion of the metal parts.

WINBEST® by BARSKA®

1 YEAR LIMITED WARRANTY

Metal Detector

WINBEST® by BARSKA®, as manufacturer, warrants this new product to be free of original defects in materials and/or workmanship for the length of time specified by this warranty. This warranty does not include damage caused by abuse, improper handling, installation, maintenance, normal wear-and-tear, unauthorized repairs or modifications and tampering in anyway.

This warranty is limited to the original purchaser and is not transferable. This warranty applies only to products purchased in the United States of America and Canada.

In the event of a defect within 30 days, the consumer must return the defective unit to the WINBEST® by BARSKA® dealer (the place of purchase) at his/her own expense.

Beyond 30 days, WINBEST® by BARSKA® products should be sent to the following address for warranty repairs. Products must be packed carefully and sturdily to prevent damage in transit, and returned freight prepaid to:

BARSKA®
1721 WRIGHT AVE.
LA VERNE, CA 91750

For additional and updated information
please visit www.barska.com

Please email info@barska.com or call 1.888.666.6769 for Return Merchandise Number (RMA#) before any returns.
NOTE: All merchandise received without a valid RMA# will be returned to shipper at his/her own expense.

Please include all of the following when returning WINBEST® by BARSKA® products for service and/or replacement:
1. Please write your complete details (Name, Address, Telephone #, E-mail address, RMA#, etc.)
2. Purchase receipt or Proof of Purchase. (Original/Copy)
3. A brief explanation of the defect
4. A Check/Money Order of $25.00 to cover inspection, shipping and handling
*Please allow 6-8 weeks for delivery

This product will either be replaced or repaired at the discretion of the warrantor. If it's a discontinued item, we will replace the product with an equivalent product. Should the repair not be covered by this warranty, an estimate will be sent for your approval. Non-warranty repairs or refurbishing are always provided at a reasonable cost.

WINBEST® by BARSKA® shall not be liable for any consequential, incidental and/or contingent damages whatsoever. We will not pay shipping, insurance or transportation charges from you to us, or any import fees, duties and or taxes.This warranty supersedes all previous Winbest® by BARSKA warranties.

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